

## REMARKS

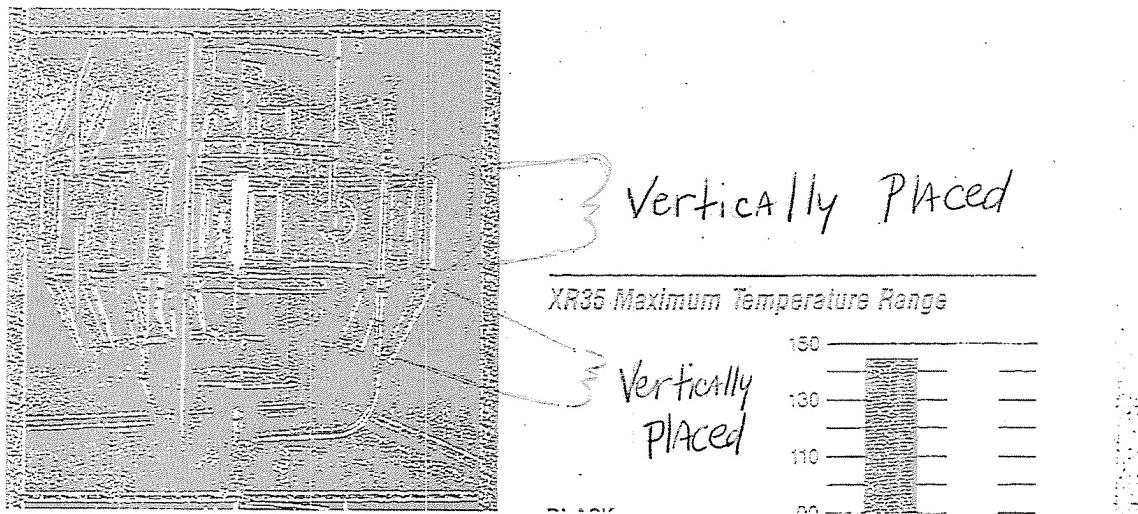
Claims 1-28 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the remarks contained herein.

### REJECTION UNDER 35 U.S.C. § 103

Claims 1-28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Atlas Electric Devices Co. (submitted on the Information Disclosure Statement on 29 March 2004, herein referred "Atlas"), and further in view of Palm et al. (submitted on the Information Disclosure Statement on 29 March 2004, herein referred "Palm"). These rejections are respectfully traversed.

At the outset Applicants respectfully point out that the Examiner's interpretation of the Atlas device specimen holders having a longer length than height, the assumption of the purpose for the variation in length between the CD-3T and the SL-3T, and the subsequent conclusion that the specimens must be placed within the apparatus in a horizontal position are incorrect. The dimensions of 70x45x3 mm and 70x145x3 mm refer to the width, height, and depth, respectively, of the CD-3T and SL-3T specimen holders. Accelerated Weathering Products, "Specimen Holders" Brochure (available at (<http://www.davidson.com.au/products/envirosim/Atlas/pdf/Ci-Series-Specimen-Holders.pdf>, last visited December 27, 2007, copy attached). The varied dimensions of 45 and 145 relate to the height of the sample which facilitates different vertical placements and vertical angling of the specimen holders within the Atlas XR35 device.

The vertical placement and angling is clarified for the Examiner in the following marked-up version of an Atlas Figure at page 2:



As the Examiner's interpretation of sample placement is believed to be incorrect and is counter to both the product specifications and illustrations in the reference, Applicants respectfully request reconsideration and removal of the §103 rejection of the claims.

Applicants reiterate that Atlas discloses apparatus and methods to simulate climate exposure and thereby predict field failure of a product. Page 2. The apparatus and methods simulate temperature cycles (-40°C to 150°C), moisture, and light exposure. Page 2. Atlas does not teach testing a substrate placed substantially horizontally in the test chamber and appears to depict the substrate being placed vertically or slightly offset from vertical in the chamber. Atlas also does not teach or suggest testing a substrate against an acid solution to simulate the effects of acid rain

or conducting an acid solution test while simultaneously delivering heat to a painted substrate.

To remedy the shortcomings of Atlas, the Examiner relies on Palm. However, while Palm discloses testing protocol to simulate acid rain, page 69, and the Palm protocol “optimize[s] the accelerated test cycle with respect to the load of acid rain spray, as well as to temperature and irradiance,” page 70, Palm does not teach or suggest varying the temperature within the testing chamber. As indicated in “The Test Cycle” description, the dry temperature difference between the light period and the dark period was a mere 9°C. Page 72. Further, Palm teaches alternating exposure angles of the substrate to include 45° and 26° angles. To the contrary, Applicants claim a method in which the substrate is substantially horizontal in a position of less than 15° to the horizontal.

One skilled in the art would not be motivated to combine the Atlas technique, which only tests temperature and humidity changes, with the Palm technique for acid rain testing without the application of heat. There is no apparent reason to combine the extreme -40°C to 150°C temperature cycling taught in the Atlas with the acid solutions from Palm.

Even if the combination were to be made, the combination would not teach or suggest Applicants’ claimed invention because both references have deficiencies or teach away from aspects of Applicants’ claimed invention. The combination of Atlas and Palm would either result in eliminating the acidic solution from the test, eliminating the simultaneous application of heat and light from the substrate, placing the substrate

in a substantially vertical position, or rotating the substrate through a series of angles greater than 15 degrees to the horizontal.

As the combination of Palm and Atlas does not teach or suggest Applicants' claimed invention, the §103 rejection of claims 1 and 25 and all dependents is improper. Reconsideration and removal of the rejection are respectfully requested.

### **CONCLUSION**

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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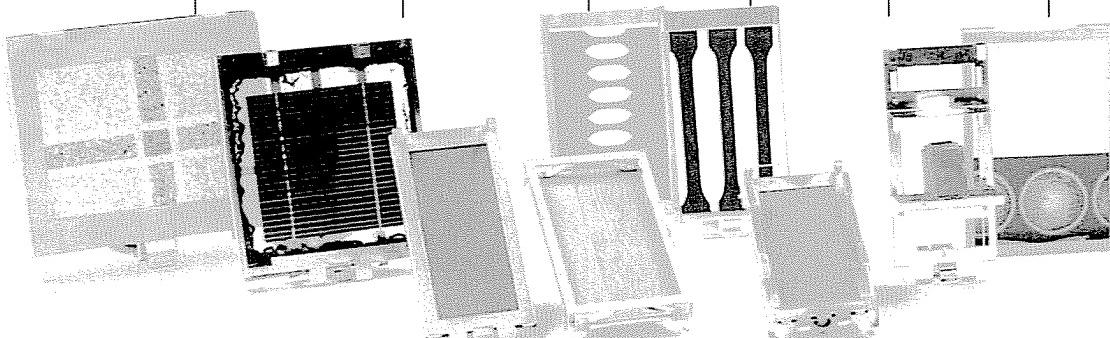


## Accelerated Weathering Products

## Specimen Holders

Holder Type	Description	Applications	Maximum Size mm (in) WxHxD	Exposure Size mm (in) WxH	Instrument	Rack Capacity
<b>SL-3T</b> Single exposure window with spring clip back Part Number 191163900	General purpose holder for exposure of thin specimens	Textiles, plastic film, automotive interior	69 x 145 x 3 (2.7 x 5.7 x 0.1)	50 x 121 (2.0 x 4.7)	Ci3000+ Ci4000 Ci5000	20 68 111
<b>SL-3T with Glass</b> Single exposure window with glass and adjustable back Part Number 07303900	Exposure through secondary filter to closely simulate end-use environment	Textiles, paper, plastic film, carpet, automotive interior	69 x 145 x 15 (2.7 x 5.7 x 0.6)	50 x 121 (2.0 x 4.7)	Ci3000+ Ci4000 Ci5000	20 68 111
<b>CD-3T</b> Three exposure windows with spring clip back Part Number 20215700	General purpose holder with three exposure windows for thin specimens	Textiles, paper, plastic film, automotive interior	69 x 145 x 3 (2.7 x 5.7 x 0.1)	3 windows: 38 x 50 (1.5 x 2.0)	Ci3000+ Ci4000 Ci5000	20 68 111
<b>CD-3T with Glass</b> Three exposure windows with glass, spring clip back Part Number 07303800	Exposure through secondary filter to closely simulate end-use environment	Textiles, paper, plastic film, wood, automotive interior	69 x 145 x 15 (2.7 x 5.7 x 0.6)	3 windows: 38 x 50 (1.5 x 2.0)	Ci3000+ Ci4000 Ci5000	20 68 111
<b>CD-2W</b> Thick carpet, hinged with support Part Number 07255500	Non-compressing exposure of thick, non-rigid materials	Carpet, foam, foam-backed materials	71 x 145 x 12 (2.8 x 5.7 x 0.5)	60 x 66 (2.3 x 2.6)	Ci3000+ Ci4000 Ci5000	20 68 111
<b>WPTC-3T</b> Part Number 06150400	Single window opening to expose wallpaper or thick carpeting	Carpet, foam, foam-backed materials, patterned materials	165 x 146 x 12 (6.5 x 5.7 x 0.5)	131 x 100 (5.1 x 3.9)	Ci3000+ Ci4000 Ci5000	8 27 39
<b>TEX-3T with Mask</b> Single exposure window with mask, adjustable Part Number 19186700	Holder with masked exposure and adjustable back to allow for thick sample	Textiles, foam, foam-backed materials	45 x 134 x 12 (0.7 x 5.3 x 0.5)	19 x 119 (.07 x 4.7)	Ci3000+ Ci4000 Ci5000	29 104 170
<b>Reference Chip</b> Polystyrene reference chip holder Part Number 19183400	Holds a single chip of polystyrene automotive reference material	Polystyrene reference chips	50 x 88 x 2 (2.0 x 3.5 x 0.1)	43 x 82 (2.8 x 3.6)	Ci3000+ Ci4000 Ci5000	16 54 93

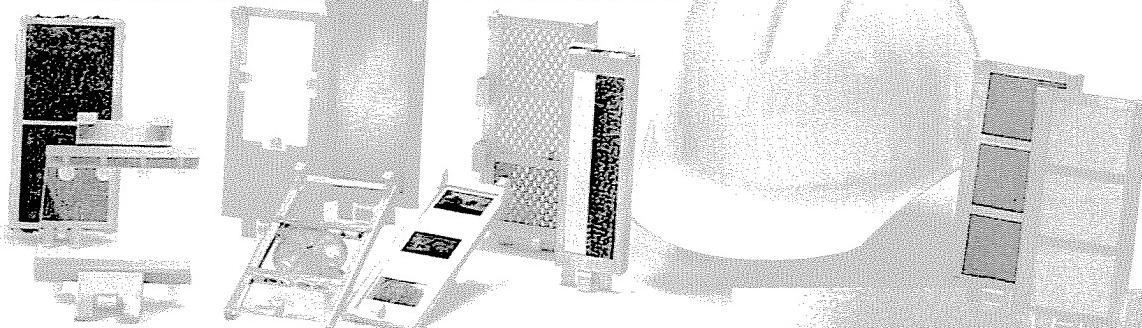
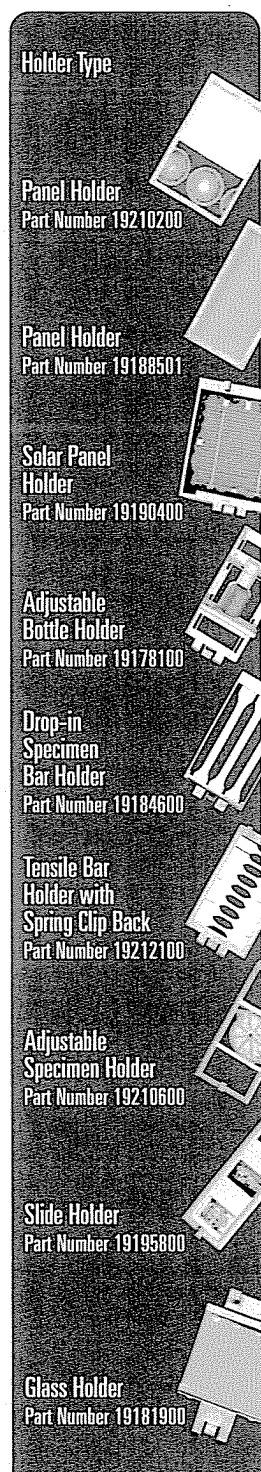
This chart is a representative sample of specimen holders available for a variety of Atlas instruments. For specific information about specimen holders that best meet your needs, please contact your local Atlas representative.



# Specimen Holders

## Accelerated Weathering Products

Rack Capacity	Instrument	Exposure Size mm (in) WxH	Maximum Size mm (in) WxHxD	Applications	Description
12 41 71	Ci3000+ Ci4000 Ci5000	101 x 146 (4.0 x 5.7)	104 x 155 x 12 (4.1 x 6.1 x 0.5)	Coatings, rigid plastic, wood	Holds 4 x 6 panels for exposure tests of coatings
16 56 87	Ci3000+ Ci4000 Ci5000	76 x 146 (3.0 x 5.7)	76 x 152 x 9 (3.0 x 6.0 x 0.37)	Coatings, rigid plastic, wood	Holds 3 x 6 panels for exposure tests of coatings
9 35 51	Ci3000+ Ci4000 Ci5000	119 x 119 (4.7 x 4.7)	127 x 138 x 9 (5.0 x 5.4 x 0.3)	Rigid plastic, roofing material, solar panels, wood	Holds large, self supporting material for exposure
20 65 111	Ci3000+ Ci4000 Ci5000	50 x 121 (2.0 x 4.7)	69 x 101 x 43 (2.7 x 4.0 x 1.7)	Bottles, labels, printing inks, adhesives, liquids, pills	Holds small bottles or test tubes for exposure of packaging and pharmaceuticals
15 50 84	Ci3000+ Ci4000 Ci5000	76 x 125 (3.0 x 4.9)	77 x 144 x 3 (3.0 x 5.6 x 0.1)	Plastics	Holds vertical specimen bars
15 50 75	Ci3000+ Ci4000 Ci5000	71 x 121 (2.8 x 4.7)	85 x 145 x 3 (3.7 x 5.7 x 0.15)	Plastics	Holds an 85 mm tensile bar
20 68 111	Ci3000+ Ci4000 Ci5000	56 x 127 (2.2 x 5.0)	55 x 137 x 5 (2.2 x 5.4 x 0.2)	Plastics	Holds specimens of varying sizes and shapes: bars, discs
21 68 111	Ci3000+ Ci4000 Ci5000	39 x 138 (1.5 x 5.4)	50 x 151 x 3 (2.0 x 5.9 x 0.1)	35 mm slides, rigid discs, plaques	Holds 50 x 50 mm slides for exposure
14 41 71	Ci3000+ Ci4000 Ci5000	101 x 92 (4.0 x 3.6)	101 x 101 x 10 (4 x 4 x 0.4)	Automotive or building glass	Holds varying widths of glass attaching at top and bottom for exposure





## Accelerated Weathering Products

## Specimen Holders

Holder Type	Description	Applications	Maximum Size mm (in)	Exposure Size mm (in)	Instrument	Rack Capacity
<b>Regular Specimen Holder</b> Part Number 56075142	Holds specimen up to 3 mm thick	Textiles, plastics, coatings, paper	135 x 45 (5.3 x 1.8)	121 x 35 (4.8 x 1.4)	Xenotest® Alpha Xenotest® 150 S+	11
<b>Specimen Holder for Thick Specimens</b> Part Number 56077987	Holds specimen up to 15 mm thick	Carpets, foam, foam-backed materials, thick panels	135 x 45 (5.3 x 1.8)	121 x 35 (4.8 x 1.4)	Xenotest® Alpha Xenotest® 150 S+	11
<b>Specimen Holder for Blue Scale</b> Part Number 56050873	Holder for Blue Scale fabric during weathering tests	Blue Scale fabric	135 x 45 (5.3 x 1.8)	—	Xenotest® Alpha Xenotest® 150 S+	only 1 needed (replaces one holder)
<b>Standard Specimen Holder (including back plate)</b> Part Number 56076543	Holds specimen up to 10 mm thick	Textiles, plastics, coatings, paper, window profiles	310 x 80 (12.2 x 3.2)	295 x 70 (11.6 x 2.8)	Xenotest® Beta+	16
<b>Special Specimen Holder, 3 Segments</b> Part Number 56076699	Holds 3 specimens up to 10 mm thick, fixed by a back plate and a cover mask	Textiles, plastics, coatings, paper	100 x 68 (3.9 x 2.7)	90 x 58 (3.5 x 2.3)	Xenotest® Beta+	16
<b>Special Specimen Holder, 2 Segments</b> Part Number 56076700	Holds 2 specimens up to 10 mm thick, fixed by 2 cover masks	Textiles, plastics, coatings, paper	135 x 45 (5.3 x 1.8)	121 x 35 (4.8 x 1.4)	Xenotest® Beta+	28
<b>Specimen Holder for Blue Scale (Special holder kit, 2 Segments)</b> Part Number 56078036	Holds Blue Scale fabric for weathering tests	Blue Scale fabric	135 x 45 (5.3 x 1.8)	—	Xenotest® Beta+	only 1 needed (replaces one holder)
<b>Set of five specimen trays for 7 specimens</b> Part Number 56079259	General purpose holder for various materials	Plastics, coatings, paper	135 x 45 (5.3 x 1.8)	121 x 35 (4.8 x 1.4)	SUNTEST XXL/XXL+	34
<b>Set of two specimen trays for four specimens</b> Part Number 56079261	General purpose holder for various materials	Plastics, coatings, paper	310 x 80 (12.2 x 3.2)	295 x 70 (11.6 x 2.8)	SUNTEST XXL/XXL+	8

This chart is a representative sample of specimen holders available for a variety of Atlas instruments. For specific information about specimen holders that best meet your needs, please contact your local Atlas representative.